

16. (once amended) A formulation as set forth in claim 1 wherein the glyphosate concentration is from about 400 g a.e./L to about 600 g a.e./L.

17. (once amended) A formulation as set forth in claim 16 wherein the formulation has a cloud point of at least about 50°C and a crystallization point not higher than about 0°C.

19. (once amended) A formulation as set forth in claim 1 wherein the formulation has a viscosity of less than about 1000 c.p. at 0°C at 45/s shear rate.

21. (once amended) A formulation as set forth in claim 1 wherein the formulation has a density of at least about 1.210 grams/liter.

24. (once amended) A formulation as set forth in claim 1 wherein the surfactant comprised by the formulation is not substantially antagonistic to the herbicidal activity of the glyphosate.

25. (once amended) A formulation as set forth in claim 1 further comprising a second herbicide.

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26. (once amended) A formulation as set forth in claim 1 further including a dicarboxylic acid.

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28. (once amended) A formulation as set forth in claim 1 wherein the formulation comprises a salt of glyphosate selected from the group consisting of potassium glyphosate, monoammonium glyphosate, diammonium glyphosate, sodium glyphosate, monoethanolamine glyphosate, n-propylamine glyphosate, ethylamine glyphosate, ethylenediamine glyphosate, hexamethylenediamine glyphosate, trimethylsulfonium glyphosate and mixtures thereof.

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32. (once amended) A storage-stable herbicidal concentrate as set forth in claim 29 wherein the concentrate comprises a salt of glyphosate selected from the group consisting of potassium glyphosate, monoammonium glyphosate, diammonium glyphosate, sodium glyphosate, monoethanolamine glyphosate, n-propylamine glyphosate, ethylamine glyphosate, ethylenediamine glyphosate, hexamethylenediamine glyphosate, trimethylsulfonium glyphosate and mixtures thereof.

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36. (once amended) A storage-stable herbicidal concentrate as set forth in claim 29 wherein the concentrate comprises potassium glyphosate.

37. (once amended) A storage-stable herbicidal concentrate as set forth in claim 29 wherein the glyphosate concentration is from about 500 g a.e./L to about 600 g a.e./L.

38. (once amended) A storage-stable herbicidal concentrate as set forth in claim 29 wherein the concentrate has a cloud point of at least about 50°C and a crystallization point of not higher than about 0°C.

39. (once amended) A storage-stable herbicidal concentrate as set forth in claim 29 wherein the concentrate has a density of at least about 1.210 grams/liter.

40. (once amended) A storage-stable herbicidal concentrate as set forth in claim 29 wherein the surfactant comprised by the concentrate is not substantially antagonistic to the herbicidal activity of the glyphosate.

42. (once amended) A storage-stable herbicidal concentrate as set forth in claim 29 wherein the concentrate has a viscosity of less than about 1000 c.p. at 0°C at 45/s shear rate.

46. (once amended) A formulation as set forth in claim 44 wherein the formulation has a cloud point of at least about 50°C and a crystallization point of not higher than about 0°C.

54. (once amended) A storage-stable herbicidal concentrate as set forth in claim 52 wherein the concentrate has a cloud point of at least about 50°C and a crystallization point of not higher than about 0°C.

59. (once amended) A storage stable herbicidal concentrate as set forth in claim 52 wherein the concentrate comprises a salt of glyphosate selected from the group consisting of potassium glyphosate, monoammonium glyphosate, diammonium glyphosate, sodium glyphosate, monoethanolamine glyphosate, n-propylamine glyphosate, ethylamine glyphosate, ethylenediamine glyphosate, hexamethylenediamine glyphosate, trimethylsulfonium glyphosate and mixtures thereof.

60. (once amended) A concentrate as set forth in claim 56 wherein the glyphosate concentration is from about 400 g a.e./L to about 600 g a.e./L.

61. (once amended) A concentrate as set forth in claim 56 wherein the concentrate has a cloud point of at least about 50°C and a crystallization point of not higher than about 0°C.

63. (once amended) A concentrate as set forth in claim 56 wherein the concentrate has a viscosity of less than about 1000 c.p. at 0°C at 45/s shear rate.

64. (once amended) A concentrate as set forth in claim 63 wherein the concentrate has a viscosity of less than about 250 c.p. at 0°C at 45/s shear rate.

65. (once amended) A concentrate as set forth in claim 56 wherein the concentrate has a density of at least about 1.210 grams/liter.

66. (once amended) A concentrate as set forth in claim 56 wherein the surfactant comprised by the concentrate is not substantially antagonistic to the herbicidal activity of the glyphosate.

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69. (once amended) A formulation as set forth in claim 67 wherein the glyphosate concentration is from about 400 g a.e./L to about 600 g a.e./L.

70. (once amended) A formulation as set forth in claim 67 wherein the formulation has a cloud point of at least about 50°C and a crystallization point of not higher than about 0°C.

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72. (once amended) A formulation as set forth in claim 67 wherein the formulation comprises a salt of glyphosate selected from the group consisting of potassium glyphosate, monoammonium glyphosate, diammonium glyphosate, sodium glyphosate, monoethanolamine glyphosate, n-propylamine glyphosate, ethylamine glyphosate, ethylenediamine glyphosate, hexamethylenediamine glyphosate, trimethylsulfonium glyphosate and mixtures thereof.

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80. (once amended) A formulation as set forth in claim 77 wherein said formulation comprises more than about 400 g a.e./L of glyphosate.

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85. (once amended) A formulation as set forth in claim 77 wherein said formulation comprises a glyphosate salt selected from the group consisting of potassium glyphosate, monoammonium

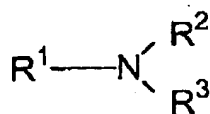
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glyphosate, diammonium glyphosate, sodium glyphosate, monoethanolamine, n-propylamine glyphosate, ethylamine glyphosate, ethylenediamine glyphosate, hexamethylenediamine glyphosate, trimethylsulfonium glyphosate, or isopropylamine glyphosate.

86. (once amended) A formulation as set forth in claim 77 wherein the surfactant comprising the formulation is not substantially antagonistic to the herbicidal activity of the glyphosate.

87. (once amended) A formulation as set forth in claim 77 wherein the formulation has a viscosity less than about 1000 c.p. at 0°C at 45/s shear rate.

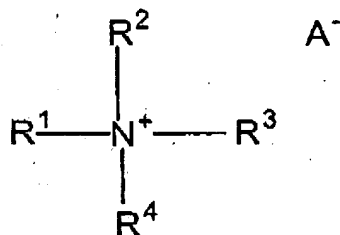
89. (once amended) A formulation as set forth in claim 77 wherein the formulation has a cloud point of at least about 50°C and a crystallization point not higher than about 0°C.

99. (once amended) A composition as set forth in claim 97 wherein said compounds are selected from the group consisting of amines or quaternary ammonium salts having the formula:



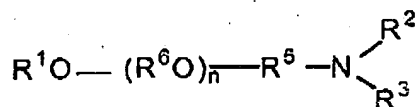
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or



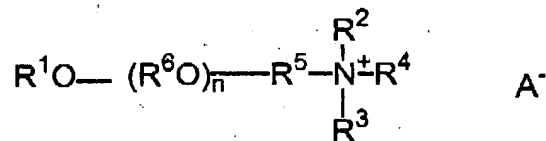
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or



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or



(89)

wherein R^1 is linear or branched alkyl or aryl having from about 4 to about 16 carbon atoms; R^2 is hydrogen, methyl, ethyl, or $(CH_2CH_2O)_xH$, R^3 is hydrogen, methyl, ethyl, or $-(CH_2CH_2O)_yH$ wherein the sum of x and y is not more than about 5; R^4 is hydrogen or methyl; R^5 in each of the n (R^5O) groups is independently C_2-C_4 alkylene; R^5 is hydrocarbylene or substituted hydrocarbylene having from 2 to about 6 carbon atoms; and A^- is an agriculturally acceptable anion.

104. (once amended) A composition as set forth in claim 102 wherein the pesticide comprises a herbicide.

111. (once amended) A composition as set forth in claim 91 wherein the composition has a viscosity less than a similarly loaded glyphosate potassium salt composition comprising an alkylpolyglycoside surfactant in combination with an alkoxylated alkylamine surfactant in a weight ratio of alkylglycoside to alkylamine surfactant of between about 5:1 and 1:1.

112. (once amended) A composition as set forth in claim 91 wherein the surfactant component is in a stable emulsion.

113. (once amended) A composition as set forth in claim 91

wherein the surfactant component is in a stable suspension.

114. (once amended) A composition as set forth in claim 91

wherein the surfactant component is in a stable dispersion.

115. (once amended) A composition as set forth in claim 91

wherein the composition is stable after storage at 50°C for at least 14 days.

117. (once amended) A composition as set forth in claim 91

wherein the surfactant component is in a solution.

119. (once amended) A composition as set forth in claim 93

wherein the composition has a viscosity of less than about 1000 centipoise at 0°C at 45/s shear rate.

123. (once amended) A composition as set forth in claim 91

wherein said surfactant component is selected such that the composition exhibits no crystallization of said glyphosate or salt thereof when stored at a temperature of about 0°C for a period of about 7 days.

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125. (once amended) A composition as set forth in claim 91 wherein said glyphosate, predominantly in the form of the potassium salt thereof, is in solution in the water in an amount of about 310 to about 600 grams of acid equivalent per liter of the composition.

133. (once amended) A composition as set forth in claim 91 wherein the total amount of surfactant is from about 60 to about 240 grams per liter of the composition.

137. (once amended) The composition of claim 91 wherein said surfactant component predominantly comprises one or more surfactants each having a molecular structure comprising:

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(1) a hydrophobic moiety having one or a plurality of independently saturated or unsaturated, branched or unbranched, aliphatic, alicyclic or aromatic C₃₋₁₈ hydrocarbyl or hydrocarbylidene groups joined together by 0 to about 7 linkages independently selected from ether, thioether, sulfoxide, ester, thioester and amide linkages, this hydrophobic moiety having in total a number *J* of carbon atoms where *J* is about 8 to about 30; and

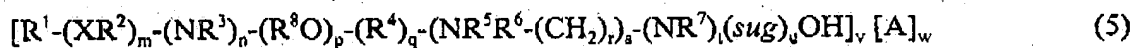
(2) a hydrophilic moiety comprising:

(i) an amino group that is cationic or that can be protonated to become cationic, having attached directly thereto 0 to 3 oxyethylene groups or polyoxyethylene chains, these oxyethylene groups and polyoxyethylene chains comprising on average no more than a number E of oxyethylene units per surfactant molecule such that $E + J \leq 50$; and/or

(ii) an alkyl sugar derivative unit, such as a glycoside, polyglycoside, or aminoglycoside group comprising on average no more than about 2 of the alkyl sugar derivative units per surfactant molecule;

said hydrophobic moiety being attached (a) directly to an amino group of said hydrophilic moiety, (b) to said hydrophilic moiety by an ether linkage incorporating an oxygen atom of one of said oxyethylene groups or of a terminal oxyethylene unit of one of said polyoxyethylene chains, or (c) to said hydrophilic moiety by an ether linkage to one of said alkyl sugar units.

138. (once amended) The composition of claim 91 wherein said surfactant component predominantly comprises one or more compounds having the formula



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X

wherein R^1 is hydrogen or C_{1-18} hydrocarbyl, each X is independently an ether, thioether, sulfoxide, ester, thioester or amide linkage, each R^2 is independently C_{1-6} hydrocarbylidene, m is an average number of 0 to about 8, the total number of carbon atoms in $R^1-(XR^2)_m$ is about 8 to about 24, n is 0 or 1, p is an average number of 0 to about 5, R^3 , R^4 , R^5 , R^6 and R^7 are independently hydrogen or C_{1-4} hydrocarbyl, R^8 is C_2-C_4 alkylene, q is 0 or 1, r is 0 to 4, s is 0 or 1, t is 0 or 1, sug is an open or cyclic structure derived from sugars or a hydroxyalkyl, polyhydroxyalkyl or poly(hydroxyalkyl)alkyl group, u is an average number from 1 to about 2, A is an anionic entity, and v is an integer from 1 to 3 and w is 0 or 1 such that electrical neutrality is maintained.

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140. (once amended) The composition of claim 138 wherein A is chloride, bromide, iodide, sulfate, ethosulfate, phosphate, acetate, propionate, succinate, lactate, citrate, tartrate or a glyphosate anion and t is 1.

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X

141. (once amended) The composition of claim 91 wherein the composition has a density of at least about 1.210 grams/liter.

142. (once amended) The composition of claim 91 wherein the surfactant comprised by the composition is not substantially antagonistic to the herbicidal activity of the glyphosate.

143. (once amended) A herbicidal method comprising diluting in a suitable volume of water a herbicidally effective amount of the composition of claim 91 to form an application composition, and applying the application composition to foliage of a plant or plants.